

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Victor Lyamichev *et al.*  
Serial No.:  
Filed: Herewith  
Entitled: **Nucleic Acid Accessible Hybridization Sites**

Group No.:  
Examiner:

**TRANSMITTAL OF PTO FORM-1449**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING UNDER 37 CFR § 1.10**

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By: \_\_\_\_\_

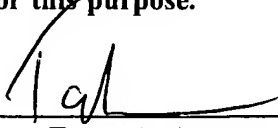
  
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Enclosed please find PTO Form-1449 for filing in the U.S. Patent and Trademark Office.

This PTO Form-1449 is being filed with the attached application. Applicant's believe no fee is required, but if the Commissioner deems otherwise, the Commssioner is hereby authorized to charge any additional fee or credit overpayment to our Deposit Account No. **08-1290**. **An originally executed duplicate of this transmittal is enclosed for this purpose.**

Dated: March 23, 2004

  
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FORM PTO-1449 Commerce (Modified)		U.S. Department of Patent and Trademark Office		Attorney Docket No.: FORS-08793		Serial No.:	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (Use Several Sheets If Necessary)				Applicant: Victor I. Lyamichev <i>et al.</i>			
(37 CFR § 1.98(b))				Filing Date: Herewith		Group Art Unit:	

U.S. PATENT DOCUMENTS							
Examiner Initials	Cite No.	Serial / Patent Number	Issue Date	Applicant / Patentee	Class	Subclass	Filing Date
	1	5,843,654	12/1/98	Heisler <i>et al.</i>	435	6	6/7/95
	2	5,422,253	6/6/95	Dahlberg <i>et al.</i>	435	91.53	12/7/92
	3	5,846,717	12/8/98	Brow <i>et al.</i>	435	6	1/24/96
	4	6,001,567	12/14/99	Brow <i>et al.</i>	435	6	7/12/96
	5	5,985,557	11/16/99	Prudent <i>et al.</i>	435	6	11/26/96
	6	5,994,069	11/30/99	Hall <i>et al.</i>	435	6	3/24/97
	7	5,436,327	7/25/95	Southern <i>et al.</i>	536	25.34	3/20/91
	8	5,429,807	7/4/95	Matson <i>et al.</i>	422	131	10/28/93
	9	5,599,695	2/4/97	Pease <i>et al.</i>	435	91.1	2/27/95
	10	6,060,310	5/9/2000	Cho-Chung	435	.375	11/24/97
	11	5,494,810	2/27/96	Barany <i>et al.</i>	435	91.52	11/22/94
	12	5,427,930	6/27/95	Birkenmeyer <i>et al.</i>	435	91.52	6/28/91
	13	6,372,424	4/16/02	Brow <i>et al.</i>	435	5	8/30/95

FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS								
		Document Number	Publication Date	Country / Patent Office	Class	Subclass	Translation	
							Yes	No
	14	WO 96/15267	8 June 1995	PCT				
	15	WO 97/27214	31 July 972	PCT				
	16	WO 98/23744	4 June 1998	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)		
	17	Abrams <i>et al.</i> , Genomics 7:463 [1990]
	18	Allawi and SantaLucia, Biochemistry 36:10581 [1997]
	19	Altamirano <i>et al.</i> , J. Infect. Dis., 171:1034 [1995]
	20	Bains and Smith, J. Theor. Biol., 135:303 [1988]
	21	Banerjee <i>et al.</i> , Science 263:227 [1994]
	22	Barlow and Lehrach, Trends Genet., 3:167 [1987]
	23	Bennett <i>et al.</i> , J. Immunol., 152:3530 [1994]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	24	Bennett <i>et al.</i> , J. Pharmacol. Exp. Ther., 280:988 [1997]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	25	Bidou <i>et al.</i> , RNA 3:1153 [1997]
	26	Borresen <i>et al.</i> , Proc. Natl. Acad. Sci. USA 88:8405 [1991]

Examiner:	Date Considered:
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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)		
	27	Brow <i>et al.</i> , J. Clin. Microbiol., 34:3129 [1996]
	28	Bruice and Lima, Biochemistry 36:5004 [1997]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	29	Campbell and Cech, RNA 1:598 [1995]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	30	Chee <i>et al.</i> , Science 274:610 [1996]
	31	Chiang <i>et al.</i> , J. Biol. Chem., 266:18162 [1991]
	32	Cload and Shephartz, J. Am. Chem. Soc., 113:6324[1991]
	33	Cockerill, III <i>et al.</i> , J. Infect. Dis., 171:240 [1995]
	34	Compton, in <i>PCR Protocols</i> , Innis <i>et al.</i> (Eds.), [1990], at p. 39
	35	Conner, Proc. Natl. Acad. Sci., 80:278 [1983]
	36	Donnabella <i>et al.</i> , Am. J. Respir. Dis., 11:639 [1994]
	37	Doty <i>et al.</i> , Proc. Natl. Acad. Sci. USA 46:461 [1960]
	38	Drmanac <i>et al.</i> , Genomics 4:114 [1989]
	39	Duckett <i>et al.</i> , Cell 55:79 [1988]
	40	Eckstein and Lilley (eds.), <i>Nucleic Acids and Molecular Biology</i> , vol. 2, Springer-Verlag, Heidelberg [1988]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	41	Freier and Tinoco, Biochemistry 14:3310 [1975]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	42	Foder <i>et al.</i> , Science 251:767 [1991]
	43	Fodor <i>et al.</i> , Nature 364:555 [1993]
	44	Francois <i>et al.</i> , Nucl. Acid. Res., 22: 3943 [1994]
	45	Fried and Crothers, Nucleic Acids Res., 9:6505 [1981]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
	46	Frieden <i>et al.</i> , New Engl. J. Med., 328:521 [1993]
	47	Gamper <i>et al.</i> , J. Mol. Biol., 197:349 [1987]
	48	Fedorova <i>et al.</i> , FEBS Lett. 302:47 [1992]
	49	Gaspin and Westhof, J. Mol. Biol. 254:163 [1995]
	50	Girelli <i>et al.</i> , Blood 90:2084 [1997]
	51	Godard <i>et al.</i> , Nucl. Acids Res., 22:4789 [1994]
	52	Gogos <i>et al.</i> , Nucl. Acids Res., 18:6807-6817 [1990]
	53	Hanke <i>et al.</i> , J. Mol. Biol., 246:63 [1995]
	54	Harrington and Lieber, Genes and Develop., 3:1344 [1994]

Examiner:	Date Considered:
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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)					
	55	Heym <i>et al.</i> , Lancet 344:293 [1994]			
	56	Hiraro <i>et al.</i> , Nucleic Acids Res. 22(4):576 [1994]			
	57	Ho <i>et al.</i> , Nature Biotechnology 16:59 [1998]			
	58	Howe and Ares, Proc. Natl. Acad. Sci. USA 94:12467 [1997]			
	59	Hughes, Scrip Magazine May [1994]			
	60	Jacobs, Jr., Clin. Infect. Dis., 19:1 [1994]			
	61	Jacobs, Jr. <i>et al.</i> , Science 260:819 [1993]			
	62	Jaeger <i>et al.</i> , Proc. Natl. Acad. Sci. USA, 86:7706 [1989]			
	63	Jaeger <i>et al.</i> , Meth. Enzymol. 183:281 [1990]			
	64	Kanai <i>et al.</i> , Lancet 339:1543 [1992]			
	65	Kwok, <i>et al.</i> , Nucl. Acids. Res. 18:999 [1990]			
	66	Lan <i>et al.</i> , Science 280:1593 [1998]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.			
	67	Lerman and Silverstein, Meth. Enzymol., 155:482 [1987]			
	68	Lima <i>et al.</i> , Biochemistry 31:12055 [1992]			
	69	Liu and Sommer, PCR Methods Applic, 4:97 [1994]			
	70	Lowman and Draper, J. Biol. Chem., 261:5396 [1986]			
	71	Lyamichev <i>et al.</i> , Nature Biotechnology 17:292 [1999]			
	72	Lyamichev <i>et al.</i> , Science 260: 778 [1993]			
	73	Mangada and Igarishi, Virus Genes 14:5 [1997]			
	74	Marmur and Lane, Proc. Natl. Acad. Sci. USA 46:453 [1960]			
	75	Maskos and Southern, Nucl. Acids Res., 20:1675 [1992]			
	76	Mateeva <i>et al.</i> , Nucleic Acids Res., 25:5010 [1997]			
	77	Mateeva <i>et al.</i> , Nature Biotechnology 16:1374 [1998]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.			
	78	Mathews <i>et al.</i> , RNA 5:1458 [1999]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.			
	79	Mathews <i>et al.</i> , J. Mol. Biol., 288:911 [1999]			
	80	Miller, <i>et al.</i> J Virol., 71:7648 [1997]			
	81	Milner <i>et al.</i> , Nature Biotechnology 15:537 [1997]			
	82	Mir and Southern, Nature Biotechnology 17:788 [1999]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.			
	83	Monia <i>et al.</i> , Nature Med., 2:668 [1996]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.			
	84	Morris <i>et al.</i> , J. Infect. Dis., 171:954 [1995]			
	85	Murante <i>et al.</i> , J. Biol. Chem., 269:1191 [1994]			
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OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)			
86	Okamoto <i>et al.</i> , J. Gen. Virol., 73:673 [1992]		
87	OligoWalk (Mathews <i>et al.</i> , RNA 5:1458 [1999]		
88	Orita, <i>et al.</i> , Genomics 5:874 [1989]		
89	Parkhurst and Parkhurst, Biochem., 34:285 [1995]		
90	Patel <i>et al.</i> , Proc. Natl. Acad. Sci. USA 93:2969 [1996]		
91	Patzel <i>et al.</i> , Nucleic Acids Res., 27:4328 [1999]		
92	Perlman and Butow, Science 246:1106 [1989]		
93	Peyman <i>et al.</i> , Biol. Chem. Hoppe-Seyler 367:195 [1995]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.		
94	Proutski <i>et al.</i> , J Gen Virol., 78( Pt 7):1543-1549 [1997]		
95	Richardson <i>et al.</i> , J. Am. Chem. Soc., 113:5109 [1991]		
96	Sambrook <i>et al.</i> , <i>Molecular Cloning: A Laboratory Manual</i> , 2nd ed. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY [1989]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.		
97	Scholz <i>et al.</i> , Hum. Mol. Genet., 2:2155 [1993]		
98	Schwille <i>et al.</i> , Biochem., 35:10182 [1996]		
99	Sczakiel, Frontiers in Biosciences 5:194 [2000]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.		
100	Serano and Cohen, Develop., 121:3809-3818 [1995]		
101	Sheffield <i>et al.</i> , Proc. Natl. Acad. Sci., 86:232 [1989]		
102	Shibata in <i>PCR: The Polymerase Chain Reaction</i> , Mullis <i>et al.</i> , eds., Birkhauser, Boston [1994], pp. 47-54		
103	Shinnick and Jones in <i>Tuberculosis: Pathogenesis, Protection and Control</i> , Bloom, ed., American Society of Microbiology, Washington, D.C. [1994], pp. 517-530		
104	"Single-Strand Conformation Polymorphism" (SSCP) was developed by Hayashi, Sekya and colleagues (reviewed by Hayashi, PCR Meth. Appl., 1:34-38, [1991])		
105	Smith <i>et al.</i> , Genomics 3:217 [1988]		
106	Sohail <i>et al.</i> , RNA 5:646 [1999]		
107	Southern <i>et al.</i> , Genomics 13:1008 [1992]		
108	Southern <i>et al.</i> , Nucleic Acids Res., 22:1368 [1994]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.		
109	Sugimoto <i>et al.</i> , Biochemistry 34:11211 [1995]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.		
110	Thompson <i>et al.</i> , Oncogene 14:1715 [1997]		
111	Uhlenbeck, J. Mol. Biol., 65:25 [1972]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.		
112	Veyrune <i>et al.</i> , Oncogene 11:2127 [1995]		
113	Vickers <i>et al.</i> , Nucleic Acids Res., 28:1340 [2000]		
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**OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)**

114	Wallace <i>et al.</i> , Nucl. Acids Res., 6:3543 [1979]
115	Walton <i>et al.</i> , Biotechnol. Bioeng., 65:1 [1999]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
116	Ward, <i>et al.</i> , Virus Genes 10:91 [1995]
117	Wartell <i>et al.</i> , Nucl. Acids Res., 18:2699-2701 [1990]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
118	Winter <i>et al.</i> , Proc. Natl. Acad. Sci. USA 82:7575 [1985]
119	Woese and Pace (p. 91), Noller (p. 137), and Cech (p. 239) in Gesteland and Atkins (eds.), <i>The RNA World</i> , Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY [1993]
120	Woese, Microbiol. Rev., 51:221-271 [1987]
121	Yacyshyn <i>et al.</i> , Gastroenterology 114:1133 [1998]. This reference is not being supplied at this time but will be sent in a Supplement Information Disclosure Statement.
122	Yang <i>et al.</i> , Biochem., 35:7959 [1996]
123	Youil <i>et al.</i> , Genomics 32:431 [1996]
124	Yoshioka <i>et al.</i> , Hepatol., 16:293 [1992]
125	Yule, Bio/Technol., 12:1335 [1994]
126	Zarrinkar and Williamson, Science 265:928 [1994]
127	Zarrinkar and Williamson, Nat. Struct. Biol., 3:432 [1996]
128	Zhong <i>et al.</i> , Biochem., 32:6898 [1993]
129	Zuker, Science 244:48 [1989]
130	Zuker and Jacobson. Nucl. Acids Res. 23:2791 [1995]

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	1	Bennett <i>et al.</i> , J. Immunol., 152:3530 [1994].
	2	Bruice and Lima, Biochemistry 36:5004 [1997]
	3	Campbell and Cech, RNA 1:598 [1995]
	4	Chiang <i>et al.</i> , J. Biol. Chem., 266:18162 [1991]
	5	Bennett <i>et al.</i> , J. Pharmacol. Exp. Ther., 280:988 [1997]
	6	Freier and Tinoco, Biochemistry 14:3310 [1975]
	7	Frieden <i>et al.</i> , New Engl. J. Med., 328:521 [1993]
	8	Lan <i>et al.</i> , Science 280:1593 [1998]
	9	Mateeva <i>et al.</i> , Nature Biotechnology 16:1374 [1998]
	10	Mir and Southern, Nature Biotechnology 17:788 [1999]
	11	Monia <i>et al.</i> , Nature Med., 2:668 [1996]
	12	Peyman <i>et al.</i> , Biol. Chem. Hoppe-Seyler 367:195 [1995]
	13	Sczakiel, Frontiers in Biosciences 5:194 [2000]
	14	Southern <i>et al.</i> , Nucleic Acids Res., 22:1368 [1994]
	15	Sugimoto <i>et al.</i> , Biochemistry 34:11211 [1995]
	16	Uhlenbeck, J. Mol. Biol., 65:25 [1972]
	17	Vickers <i>et al.</i> , Nucleic Acids Res., 28:1340 [2000]
	18	Walton <i>et al.</i> , Biotechnol. Bioeng., 65:1 [1999]
	19	Wartell <i>et al.</i> , Nucl. Acids Res., 18:2699-2701 [1990]
	20	Yacyshyn <i>et al.</i> , Gastroenterology 114:1133 [1998]
	21	Eckstein and Lilley (eds.), <i>Nucleic Acids and Molecular Biology</i> , vol. 2, Springer-Verlag, Heidelberg [1988] ( <b>FRONT PAGE AND INDEX PAGES ONLY</b> )
	22	Sambrook <i>et al.</i> , <i>Molecular Cloning: A Laboratory Manual</i> , 2nd ed. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY [1989] ( <b>FRONT PAGE AND INDEX PAGES ONLY</b> )

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